

**NATIONAL PARK SERVICE
FIRE MANAGEMENT PROGRAM CENTER**

STRUCTURAL FIRE PROGRAM QUALIFICATION SYSTEM GUIDE

September 2000



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Position Qualifications

Regional Structural Fire Management Officer

General Duties

This position will have direct oversight and responsibilities for all issues relating to structural fire prevention and suppression within the region. The incumbent must have a professional knowledge of structural fire science in order to develop and implement an integrated approach to the agencies structural fire management program. This knowledge will be used to determine, establish and apply the latest technologies for fire principles, methods, and techniques that are necessary to prevent and suppress structural fires.

Incumbent will be required to understand policies and procedures for the administration of inspection and suppression functions so that the policies are clearly defined and concise and in accordance with the legal obligations of the agency.

Ability to provide leadership and accomplish goals working with interdisciplinary teams and with counterparts within and from other agencies. Ability to clearly define problems, conduct meetings, and guide people whom may have conflicting agendas toward a common goal.

Ability to manage budgets, including auditing the financial programs of park-level fire programs.

This duty requires the ability to prepare professional correspondence and plan review reports as well as identifying when additional expertise is required and being familiar with procedures used by the jurisdiction to evaluate alternative methods. Capable of writing correspondence to communicate fire protection and fire and life safety code requirements so that the correspondence provides an accurate interpretation of applicable codes and standards and is appropriate for the intended audience.

Ability to communicate orally and in writing in order to develop plans, write reports, provide advice and technical expertise to parks.

Create plan review checklists and forms, given applicable codes, standards, and departmental policies and procedures, so that the materials developed are clear and concise, address key issues, and clearly express code requirements of the jurisdiction in a logical and complete format.

Codes and Standards

Incumbent is required to have extensive knowledge of fire science and management concepts, i.e., principles of combustion and fire growth, building construction and occupancy classifications, structural building inspection procedures, fire hazard

evaluation, site access and means of egress, water based fire protection and water supply systems, portable fire extinguishers, special agent fire extinguishing systems and fire detection and alarm systems and building plan review. Individual must be capable of research and interpretation of building and fire codes.

Must be capable of analyzing and approving plans, specifications, and construction documents for buildings, processes, operations, and fire protection systems and equipment to ensure they meet the intent of applicable codes and standards in accordance with the policies and procedures of the agency.

Knowledge of requirements imposed by legislation and regulations such as NEPA, NFPA, OSHA and National Historic Preservation Act.

Able to evaluate a proposed alternative method for compliance with applicable codes and standards, given a design that does not meet prescriptive code requirements and supporting documentation of a submittal, so that the design meets the intent of applicable codes and standards.

Prerequisite Experience	Two years of field experience and/or formal education directly related to fire prevention
Recommended Education or equivalent	Fire Inspection Principles (R220) Fire Protection: Structures and Systems (R222) Plans Review for Inspectors (R102)
Physical Fitness	Moderate
Currency Requirements	40 hours every 2 years

Required Training	Introduction to NPS Structural Fire Fire Inspection Principles (R220) Fire Protection: Structures and Systems (R222) Plans Review for Inspectors (R102)
Recommended Training	Management of Fire Prevention Programs (R225) NFPA Life Safety Code Seminar NFPA Automatic Sprinkler System Seminar NFPA National Fire Alarm Code NFPA National Electrical Code Seminar

Park Structural Fire Management Officer

GS 12, > 350 buildings w/ prevention and suppression responsibilities

GS 11, <350 buildings w/ prevention and suppression responsibilities

General Duties

This duty involves the preparation of correspondence and plan review reports as well as identifying when additional expertise is required and being familiar with procedures used by the agency to evaluate alternative methods. Must be capable of writing correspondence to communicate fire protection and fire and life safety code requirements so that the correspondence provides an accurate interpretation of applicable codes and standards and is appropriate for the intended audience.

Must have the experience to develop programs that improve and expand the agencies structure fire program, one that builds partnerships with the public. Individual should have the experience or ability to counsel brigade members and assist with employee development for obtaining full potential.

Individual must be able to evaluate the completion and correctness of inspection reports given applicable codes, standards, policies and procedures of the agency, so that the information contained in the report forms and checklists is correct, clear, and concise and key issues are addressed in compliance with applicable codes, standards, and policies.

Individual must be able to implement, manage and enforce a permitting process and a filing system, given inspection requirements and needs, fire code deficiencies, and related documents, so that information can be efficiently maintained and retrieved and is maintained in accordance with the record-keeping process of the agency.

Individual should be familiar with budget procedures, revenue sources and funding mechanisms of the agency and is capable of recommending a program budget, given organizational goals, budget guidelines, and organizational needs, so that overall program needs are addressed within budget guidelines.

Must have experience of establishing a list of education and in-service training goals, given a summary of the job requirements for all positions within the department, so that all members can achieve and maintain required proficiencies. Able to evaluate and project training requirements, facilities, and buildings, that meets agency and department training goals.

Direct unit members during a training evolution, given a company training evolution and training policies and procedures, so that the evolution is performed safely, efficiently, and as directed.

Codes and Standards

Be competent at evaluating fire protection systems and equipment provided for the protection of a building or facility, given field observations of the facility and documentation, the hazards protected, and the system specifications, so that the fire protection systems provided are appropriate for the occupancy or hazard being protected and are installed in compliance with applicable codes and standards and all deficiencies are identified, documented, and reported in accordance with the policies of the jurisdiction. Must be able to evaluate code compliance for emergency vehicle access, required fire flows, hydrant location and spacing.

Must have the experience to conduct code enforcement inspections of existing structures and properties for construction, occupancy, fire protection, and exposures. Able to conduct code-related research and have the ability to clearly express code requirements verbally and in writing. Must understand requirements relative to emergency evacuation drills, knowledge of ways to conduct and/or evaluate fire drills in various occupancies, and have an understanding of human behavior during fires and emergencies.

Knowledgeable of methods and standards used to evaluate the operational readiness of water supply systems used for fire protection; evaluation and testing of automatic sprinkler, water spray, and standpipe systems and fire pumps; evaluation and testing of fixed fire suppression systems including CO₂, Halon, foam, and dry chemical; evaluation and testing of automatic fire detection and alarm systems and devices.

Able to field verify the installation of a fire protection system, given shop drawings and system specifications for a process or operation, so that the system is reviewed for code compliance and installed in accordance with the approved drawings, and all deficiencies are identified, documented, and reported in accordance with the policies of the agency.

Prerequisite Experience	None
Physical Fitness	Moderate
Currency Requirements	40 hours every 2 years

Required Training	Introduction to NPS Structural Fire Fire Inspection Principles (R220) Fire Protection: Structures and Systems (R222) NPS Certified Structural Firefighter
Recommended Training	Managing Fire Prevention Programs (R225) NFPA Life Safety Code Seminar NFPA Automatic Sprinkler System Seminar NFPA National Fire Alarm Code

	NFPA National Electrical Code Seminar NPS Pump Operator NPS Fire Officer
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Fire Prevention Officer III

General Duties

This duty involves the preparation of correspondence and plan review reports as well as acknowledging when additional expertise is required and familiar with procedures used by the agency to evaluate alternative methods.

Must be capable of evaluating the completion and correctness of inspection reports and completed forms and checklists, given applicable codes, standards, policies, and procedures of the agency, so that the information contained in the report forms and checklists is correct, clear, and concise and key issues are addressed in compliance with applicable codes, standards, and policies.

Must be able to assess the impact of proposed codes, ordinances, and other legislation, given draft documents, so that the impact of the proposal on fire safety and code enforcement activities is documented.

Must have the ability to implement or enforce a permitting process, make decisions and evaluate consequences of improper enforcement.

Capable of developing written correspondence that communicates fire protection and fire and life safety code requirements that provides an accurate interpretation of applicable codes and standards and is appropriate for the intended audience. Prepare reports, given observations from a plan review, so that the report is clear, concise, and accurately reflects the findings of the plan review in accordance with applicable codes and standards and the policies and procedures of the agency. Must be able to review, verify and approve plans and construction documents for site plans, tents and membrane structures, special amusement structures, exhibits, trade shows, and temporary structures, to ensure that they meet the intent of applicable codes and standards for fire and life safety.

Familiar with agency policies and procedures for the administration of building inspection functions. Able to read blueprints and identify symbols related to construction plans and specifications, perform plan reviews and be familiar with sources of detailed and technical information relative to plans and specifications.

Able to implement, manage and maintain a filing system, given inspection requirements and needs, fire code deficiencies, and related documents, so that information can be efficiently maintained and retrieved and is maintained in accordance with the record-keeping process of the agency and the structure fire program.

Codes and Standards

Must have the ability to interpret codes and standards, communicate requirements, make decisions, listen, read reports and plans, evaluate, and issue written reports.

Familiar with standard civil engineering symbols; types of water supply and distribution systems; water distribution system test methods; backflow prevention, and other devices that can impact on fire flow; the effects of friction loss and elevation on water flow; potential impact of state health regulations on fire flow; and the applicable codes and standards related to fire flow in the jurisdiction.

Should be familiar with heating, ventilation, air conditioning, and other building service equipment and operations so that the systems and other equipment are provided in accordance with applicable codes and standards and all deficiencies are identified, documented, and reported in accordance with the policies of the agency.

Prerequisite Experience	Minimum one-year experience as Fire Inspector II or two years of field experience and/or formal education directly related to fire prevention.
Physical Fitness	Moderate
Currency Requirements	40 hours every 2 years

Required Training	Fire Inspection Principles (R220) Fire Protection: Structures and Systems (R222) Plans Review for Inspectors (R102)
Recommended Training	Management of Fire Prevention Programs (R225) NFPA Life Safety Code Seminar NFPA Automatic Sprinkler System Seminar NFPA National Fire Alarm Code NFPA National Electrical Code Seminar

Fire Prevention Officer II

General Duties

Familiar with code-related research and the ability to clearly express code requirements verbally and in writing. Able to observe, communicate, interpret codes, recognize hazardous conditions, and make decisions. Able to conduct code enforcement inspections of existing structures and properties for construction, occupancy, fire protection, and exposures.

Basic knowledge and understanding of fire behavior, flame spread and smoke development ratings of contents, interior finishes, building construction elements, decorations, decorative materials, and furnishings, and safe housekeeping practices.

Understand requirements relative to emergency evacuation drills that are required within the agency, identification of ways to conduct and/or evaluate fire drills in various occupancies, and have an understanding of human behavior during fires and emergencies.

Ability to develop written correspondence to communicate fire protection and prevention requirements, given a serious fire safety issue, so that the correspondence reflects research and accurate interpretation of applicable codes and standards and is appropriate for the intended audience.

Able to evaluate emergency planning and preparedness procedures, given copies of existing or proposed plans and procedures, to determine their applicability to the facility and their compliance with codes and standards. Must have a thorough understanding of occupancy requirements for emergency evacuation plans, fire safety programs, role of agency and individuals in implementation and development of emergency evacuation plans.

Should be able to verify fire flows for a site, given fire flow test results and water supply data, so that required fire flows are in accordance with applicable codes and standards and all deficiencies are identified, documented, and reported in accordance with the policies of the agency. Must be capable of using a Pitot tube and gauges to calculate and graph fire flow results.

Should be capable of evaluating emergency access for a site so that the required access for emergency responders is provided, deficiencies are identified, documented, and corrected in accordance with the applicable codes, standards, and policies of the agency.

Capable of proper selection, distribution, location, and testing of portable fire extinguishers. Able to evaluate and test automatic sprinklers, water spray, and standpipe systems and fire pumps and fixed fire suppression systems including CO₂, Halon, foam, and dry chemical; and automatic fire detection and alarm systems and devices.

Should be familiar with agency policies and procedures for the administration of building inspection functions. Able to read blueprints and identify symbols related to construction plans and specifications, perform plan reviews and be familiar with sources of detailed and technical information relative to plans and specifications.

Able to implement, manage and maintain a filing system, given inspection requirements and needs, fire code deficiencies, and related documents, so that information can be

efficiently maintained and retrieved and is maintained in accordance with the record-keeping process of the agency and the structure fire program.

Codes and Standards

Must have the ability to learn to calculate occupant loads for a single use occupancy and code requirements, regulations, operational features, and fire hazards presented by various occupancies. Must have the ability to identify the occupancy classification of a single and multi use occupancy so that an accurate classification is made according to the applicable codes and standards.

Must be knowledgeable of applicable codes and standards adopted by the agency and have a general understanding of the interrelationship between those codes and regulations, and various sources for additional reference materials related to code enforcement.

Must be able to research code compliance for storage, handling, and use of flammable and combustible liquids and gases.

Must be able to field verify the installation of a fire protection system so that the system is reviewed for code compliance and installed in accordance with the approved drawings, and all deficiencies are identified, documented, and reported.

Prerequisite Experience	Minimum 1 year experience as Fire Inspector I or two years of field experience and/or formal education directly related to fire prevention.
Physical Fitness	Moderate
Currency Requirements	40 hours every 2 years

Required Training	Fire Inspection Principles (R220) Fire Protection: Structures and Systems (R222)
Recommended Training	Plans Review for Inspectors (R102) NFPA Life Safety Code Seminar NFPA Automatic Sprinkler System Seminar NFPA National Fire Alarm Code NFPA National Electrical Code Seminar

Fire Prevention Officer I

General Duties

Must be capable of recognizing the need for plan review, given a situation or condition, so those requirements for plan reviews are communicated.

Should be capable of recognizing the need for a permit, given a situation or condition, so those requirements for permits are communicated in accordance with the policies of the agency.

Able to investigate common deficiencies so that complaint information is recorded, the appropriate process is initiated, and the complaint is resolved.

Must have a basic understanding of portable fire extinguishers, components, proper placement and have ability to determine the operational readiness of existing portable fire extinguishers so that the equipment is in an operational state, maintenance is documented, and all deficiencies are identified, documented, and reported.

Understand need for emergency access for a site so that the required access for emergency responders is maintained.

With field observations and given inspection guidelines, able to identify hazardous situations for incidental storage, handling, and use of flammable and combustible liquids and gases. Able to document in writing and report all deficiencies identified.

Ability to maintain files of complaint investigations and related documents, so that information can be easily retrieved and is filed in compliance with the record-keeping policies of the agency.

This duty involves general understanding of codes and standards, ability to write reports, and communicate verbally and in writing.

Codes and Standards

This duty involves fire safety inspections of existing structures and properties. Individual must be able to prepare inspection reports so that the report is clear and concise and accurately reflects the findings of the inspection. Must have knowledge of practices and techniques of code compliance inspections, fire behavior, ignition sources and safe housekeeping practices.

Individual should be able to prepare written correspondence on fire protection and prevention issues so that the correspondence is concise, accurately reflects applicable codes and standards, and is appropriate for the intended audience.

Must have basic understanding of the components and operation of fixed fire suppression systems and applicable codes and standards. Must be capable of and ability to determine the operational readiness of existing fixed fire suppression systems so that the system(s) is in an operational state, maintenance is documented, and all deficiencies are identified, documented.

Must have a basic understanding of the components and operation of fire detection and alarm systems and devices and applicable codes and standards. Must be capable of and ability to determine the operational readiness of existing fire detection and alarm systems so that the systems are in an operational state, maintenance is documented, and all deficiencies are identified and documented.

Prerequisite Experience	Introduction to NPS Structure Fire
Physical Fitness	Moderate

Required Training / Experience	Fire Inspection Principles (R220)
Recommended Training	Fire Protection: Structures and Systems (R222) NFPA Life Safety Code Seminar NFPA Automatic Sprinkler System Seminar NFPA National Fire Alarm Code NFPA National Electrical Code Seminar

Fire Officer

Able to establish personnel assignments to maximize efficiency and able to evaluate and counsel engine company members and assist with employee development for obtaining full potential.

Able to develop programs that improves and expands services' structure fire program that builds partnerships with the public.

Understand the supplies and equipment requirements necessary for existing and new brigade programs including apparatus maintenance, and personnel costs.

Able to direct the development, maintenance, and evaluation of an engine company record-keeping system, given policies and procedures, so as to attain completeness and accuracy.

Must actively participate in an inspection program to maintain effectiveness while developing pre incident fire plans.

Ability to evaluate and identify construction, alarm, detection, and suppression features that contribute to or prevent the spread of fire, heat, and smoke throughout the building or from one building to another, given an occupancy, to evaluate the development of a preincident plan for all occupancy types.

Must understand policies and procedures, resources, capabilities, roles, responsibilities, and authority of mutual aid resources.

Must have the knowledge and ability to effectively delegate authority and build in accountability.

Must be able to establish and evaluate a list of education and in-service training goals, given a summary of the job requirements for all positions within the department, so that all members can achieve and maintain required proficiencies. Must be able to initiate actions to maximize member performance and/or to correct unacceptable performance so that member and/or unit performance improves.

Must be capable of directing engine company members during a training evolution so that the evolution is performed safely, efficiently, and as directed.

Prerequisite Experience	Current as a NPS Structural Firefighter - Level II
Physical Fitness Standard	Must meet the "Arduous" level of the Work Capacity Test
Medical Standards	Must comply with DO57 (Occupational Medical Standards; Health and Fitness) and NFPA standard 1582 (Medical Requirements for Firefighters)
Currency Requirements	Annual: 16 hours to include engine company evolutions 8 hours of hazardous materials refresher + 2 Year: Live fire exercise

Required Training	NPS Certified Structural Firefighter NPS Structural Firefighter – Pump Operator NPS Structural Firefighter - Fire Officer Fire Operations in the Urban Interface (S-215) Intermediate ICS (I-300) Vehicle extrication
Recommended Qualifications / Training	Emergency Medical First Responder Task Force/Strike Team Leader (S-330)

	Ignition Operations (S-234), Fire Suppression Tactics (S-336), Confined Space Awareness, Command and Control of Fire Department Operations at Target Hazards NFA (R314)
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Pump Operator

The fire department apparatus driver/operators shall meet the state licensing requirements for the state that the vehicle will be operated in.

The driver/operator shall be subject to periodic medical evaluation, as required by NFPA 1500, Standard on Fire Department Occupational Safety and Health Program, Section 8-1, Medical Requirements, to determine that the driver/operator is medically fit to perform the duties of a fire department vehicle driver/operator.

Must be able to perform routine tests, inspections, and servicing functions on the following systems and components given a fire department vehicle and its manufacturer's specifications, so that the operational status of the vehicle is verified; Batteries, braking system, coolant system, electrical system, fuel, hydraulic fluids, oil, tires, steering system, belts, tools, appliances, and equipment.

Must be capable of properly documenting routine tests, inspections, and servicing functions so that all items are checked for proper operation and deficiencies are reported.

Safely operate a fire department vehicle during normal operations, so that the vehicle is safely operated in compliance with all applicable state and local laws, agency rules and regulations.

Must have knowledge of the effects on vehicle control of liquid surge, braking reaction time, load factors, general steering reactions, speed, and centrifugal force, principles of skid avoidance, night driving, shifting, and gear patterns; negotiating intersections, railroad crossings, and bridges; weight and height limitations for both roads and bridges; identification and operation of automotive gauges; and proper operation limits on the apparatus at your location.

The ability to maintain safe following distances, maintain control of the vehicle while accelerating, decelerating, and turning, maintain reasonable speed for road, weather, and traffic conditions, operate safely during nonemergency conditions, operate under adverse environmental or driving surface conditions, and use automotive gauges and controls.

Familiar with vehicle dimensions, turning characteristics, spotter signaling, and principles of safe vehicle operation.

Operate all fixed systems and equipment on the vehicle not specifically addressed elsewhere in this standard, given systems and equipment, manufacturer's specifications and instructions, and departmental policies and procedures for the systems and equipment, so that each system or piece of equipment is operated in accordance with agency policies.

Perform the practical driving exercises specified in NPS manuals given a fire department pumper and a spotter for backing, so that each exercise is performed safely without striking the vehicle or obstructions.

Highly efficient at producing effective, uninterrupted hand and master streams so that the pump is safely engaged, all pressure control and vehicle safety devices are set, the rated flow of the nozzle is achieved and maintained, and the apparatus is continuously monitored for potential problems. Must be able to perform hydraulic calculations for friction loss and flow using both written formulas and estimation methods, safe operation of the pump, hydrant coding systems, and reliability of static sources.

Capable of calculating proper pump discharge pressure and understand operating principles of sprinkler systems and standpipe systems.

Prerequisite Experience	Current as a NPS Structural Firefighter - Level II
Physical Fitness Standard	Must meet the "Arduous" level of the work Capacity Test
Medical Standards	Must comply with DO57 (Occupational Medical Standards; Health and Fitness) and NFPA Standard 1582 (Medical Requirements for Firefighters)
Currency Requirements	Annual: 16 hours to include engine company evolutions and identified performance standards specific to pump operations. 8 hours of Hazardous Materials refresher + 2 Year: Live fire exercise + Valid state vehicle operator's licenses appropriate for equipment to be operated.
Required Training	S 130 - Wildland Firefighter Training S 190 - Introduction to Wildland Fire Behavior NPS Certified Structural Firefighter NPS Structural Firefighter - Pump Operator

Recommended Qualifications / Training	Emergency Medical First Responder or EMT Vehicle Extrication Advanced Wildland Firefighter Training (S-131) Fire Operations in the Urban Interface (S-215) Intermediate ICS (I-300) Portable Pumps and Water Use (S-211)
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NPS Certified Structural Firefighter

Able to communicate during emergency situations, understand techniques used to make assignments under stressful situations.

This duty involves the ability to conduct building inspections to identify hazards and address violations. Must be capable of developing a preincident plan so that all required elements are identified and the appropriate forms are completed.

Must be capable of using a SCBA during emergency operations, so that the SCBA is properly donned and activated in approximately one minute, the SCBA is correctly worn, controlled breathing techniques are used, emergency procedures are enacted if the SCBA fails, all low-air warnings are recognized, respiratory protection is not compromised, and hazardous areas are exited prior to air depletion.

Must understand personnel accountability systems, communication procedures, emergency evacuation methods, what constitutes a safe haven, elements that create or indicate a hazard, and emergency procedures for loss of air supply.

Able to attack an interior structure fire operating as a member of a team, given an attack line, personal protective equipment and tools so that team integrity is maintained, the attack line is properly deployed for advancement, ladders are correctly placed when used, access is gained into the fire area, effective water application practices are used, the fire is approached safely, hidden fires are located and controlled and the fire is brought under control.

Must understand principles of fire streams; types, design, operation, nozzle pressure effects, and flow capabilities of nozzles, dangerous building conditions created by fire; principles of exposure protection, the role of the backup team in fire attack situations techniques for exposing hidden fires.

Understand how to prevent water hammers when shutting down nozzles, apply water using direct, indirect, and combination attacks; advance charged and uncharged hose lines up ladders and up and down interior and exterior stairways and locate and suppress interior wall and subfloor fires.

Able to perform horizontal ventilation on a structure operating as part of a team, so that the ventilation openings are free of obstructions, tools are safely used, ladders are properly used, ventilation devices are properly placed, and the structure is cleared of smoke.

Understand the principles, advantages, limitations, and effects of horizontal, mechanical, and hydraulic ventilation; safety considerations when venting a structure, understand the signs, causes, effects, and prevention of backdrafts.

Understand the concept for performing vertical ventilation on a structure operating as part of a team so that ladders are properly positioned for ventilation, a sufficient opening is created, all ventilation barriers are removed, structural integrity is not compromised, products of combustion are released from the structure, and the team retreats from the area when ventilation is accomplished. Able to overhaul a fire scene so that structural integrity is not compromised, all hidden fires are discovered, fire cause evidence is preserved, and the fire is extinguished.

Able to clean, inspect, and return fire hose and equipment to service so that damage is noted and corrected, the hose is clean, and the equipment is placed in a ready state for service.

Prerequisite Experience	None
Physical Fitness Standard	Must meet the "Arduous" level of the Work Capacity Test
Medical Standards	Must comply with DO57 (Occupational Medical Standards; Health and Fitness) and NFPA standard 1582 (Medical Requirements for Firefighters)
Currency Requirements	Annual: 16 hours of skills and evolutions training. 8 hours of hazardous materials refresher + Every 2 years: Live fire exercise

Required Training	Basic ICS (I-200) Hazardous Materials Awareness/Operations NPS Certified Structural Firefighter
Recommended Qualifications / Training	S 130 - Wildland Firefighter Training S 190 - Introduction to Wildland Fire Behavior S 211 - Portable Pumps and Water Use Emergency Medical First Responder or EMT Vehicle Extrication

	Wildland Firefighter Advanced Wildland Firefighter / Squad Boss Fire Operations in the Urban Interface (S-215)
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Training Courses - Fire Prevention

NPS Structural Fire Management Officer
(NPS 40 hours)

This 40 hours course incorporates the National Fire Academy's 24 hour Introduction to Fire Inspection Principles and a NPS specific training module to provide the student with the foundational knowledge required to fulfill the duties of a Park Structural Fire Management Officer.

Fire Inspection Principles
(National Fire Academy R220, 80 hours)

This course is designed to provide the student with the fundamental knowledge, skills, and attitude to conduct both basic and intermediate-level fire safety inspections. Students will be introduced to the codes and standards adopted by the NPS in order to develop a working knowledge of their application in the inspection process.

Topics addressed in this course include the fire inspector's responsibilities and role in code enforcement, the relationship of fire and codes, general fire prevention practices, inspection competencies, life safety considerations and enforcement, fire safety principles and requirements related to hazardous materials, special hazards of electrical, heating, and cooking equipment and systems, and fire protection systems and equipment.

Principles of Fire Protection: Structures and Systems
(National Fire Academy R222, 80 hours)

This course is designed to meet the professional development needs of the advanced fire prevention or code enforcement official. The course provides the advanced knowledge, skills, and attitudes to conduct detailed fire safety inspections, to analyze the level of fire and life safety in buildings, and to understand operating principles, application, acceptance and testing, and inspection of fire protection systems and equipment. Students will become familiar with the codes and standards that relate to fire prevention, building construction, and building mechanical systems.

Topics addressed in this course include understanding the legal environment, plans review, identifying and using resources, dealing with the public, industry, and other agencies, conducting inspections, and the testing, inspection, and maintenance of fire protection systems and equipment. The course combines classroom instruction and a

"hands-on" learning approach in the Academy's Fire Protection Systems Laboratories. Students attending this course must complete a pre-course assignment.

Plans Review for Inspectors (National Fire Academy R102, 80 hours)

This course will assist the student in verifying that construction documents comply with the applicable fire codes and fire protection requirements of both building and mechanical codes.

Subjects addressed in the course include review of site plans for emergency apparatus access, water supply, and hydrants for fire protection, review of architectural drawings for construction requirements, means of egress for life safety, and fire-resistive compartmentalization, evaluation of HVAC and smoke control/exhaust systems, evaluation of exit illumination and emergency power supplies, and review and evaluation of fire protection systems focusing on alarm/detection and automatic sprinkler systems.

Management of Fire Prevention Programs (National Fire Academy R225, 80 hours)

This course uses proven management concepts as a basis for the efficient operation of a fire prevention organization. The course focuses on planning, promoting, and executing fire prevention functions. Topics include needs assessment, planning, legal responsibilities, management techniques, negotiation, evaluation, and a case study.

The course content and delivery methods are suitable for senior representatives of fire prevention bureaus/units of all sizes and organizational complexities. *Management of Fire Prevention Programs* is structured to give fire prevention managers the requisite knowledge and skills, given a finite amount of resources, to plan effectively, promote, and execute fire prevention functions.

Training Courses - Fire Suppression

NPS Certified Structural Firefighter

Course description – This 80 hour class is designed to provide persons participating in National Park Service structural fire suppression with a standardized body of knowledge and skills that will certify them to function safely on the fire ground. The class emphasis is hands-on and focuses on individual firefighter skills and provides standards for tactical engine company evolutions. By the end of the course students will have learned technical and standardized tactical procedures to safely conduct interior and exterior suppression operations. The individual will be capable of competently initiating offensive, defensive and transitional initial attack operations under the direction of a currently certified Fire Officer.

Target audience – Personnel that participate in a NPS structural fire suppression program.

Training Requirements – Must meet the “Arduous” level of the Work Capacity Test and comply with Medical Standard DO57 (Occupational Medical Standards; Health and Fitness) and NFPA standard 1582 (Medical requirements for Firefighters).

Certified Structural Firefighter - Pump Operator

Course Description – 40-hour class designed to provide persons participating in National Park Service structure fire suppression with technical information and primary skills essential for safe operation of a fire apparatus. Emphasis is hands-on training of pumping skills critical to the support of personnel assigned to fire control functions. Personnel will become proficient in trouble shooting, hydraulics, drafting and multiple line pumping evolutions. This will be supported with technical literature and training manuals. After successful completion of this course the individual will be certified to pump and maintain structure fire apparatus.

Target Audience – All persons assigned to operate and maintain structure fire engines.

Training Requirements – Must meet the “Arduous” level of the Work Capacity Test and comply with Medical Standard DO57 (Occupational Medical Standards; Health and Fitness) and NFPA standard 1582 (Medical requirements for Firefighters). Must be a certified at the NPS Structural Firefighter Level II, and must be capable of obtaining the appropriate state vehicle operator's license.

Work is underway to develop an 8 –16 hour certifiable Emergency Vehicle Operators course that will be required for all persons responsible for driving and operating fire apparatus.

Certified Structural Firefighter - Fire Officer

Course Description – This course will provide selected candidates with technical knowledge and leadership skills essential for command and control of emergencies using the Incident Command System. Individuals are introduced to the management skills of preplanning, communications, decision-making, fire attack strategies/tactics and logistical support functions. Skills are reinforced and evaluated through dynamic group sessions and video simulations.

Target Audience – Individuals assigned to respond to structure fire incidents with responsibility to plan, organize, direct and control resources assigned to secure life, safety, and preserve and protect property and the environment.

Training Requirements - Must meet the “Arduous” level of the Work Capacity Test and comply with Medical Standard DO57 (Occupational Medical Standards; Health and Fitness) and NFPA standard 1582 (Medical requirements for Firefighters). NPS certified

Level II Firefighter and Pump Operator and successfully completed Hazardous Materials Awareness/Operations, Intermediate Incident Command System (I-300) NPS Structural Firefighter -Fire Officer and Fire Operations in the Urban Interface (S-215).

Fire Suppression Instructor Qualifications

Two levels of structural fire suppression instructors are recognized, Lead Instructor and Core Instructor. Contract instructors may be used to present specialized training or as subject matter experts.

Lead Instructor

Lead instructors must have sufficient experience in presenting units of the course so as to be capable of last minute substitution for core instructors. It is recognized that exceptions may occur where courses are of such a technical nature that no one person may be technically competent to instruct all units. Lead instructors must meet the training/experience requirements as outlined under "Instructor training requirements for NPS certified lead instructors." Lead instructors must also be position qualified at the next higher job level (e.g. Level II instructor must be Pump Operator qualified).

Instructor training requirements for NPS certified lead instructors:

1. Must have taken and passed the class that is being taught.
2. Have taken and passed all prerequisite classes.
3. Be currently certified at a level above the class being presented.
4. Must have taken and passed facilitative instructor or equivalent fire service training.
5. Must have the ability to instruct all elements of the course.
6. Must meet NPS standards and be approved by the NPS Structural Fire Training and Education Officer.

Core Instructors

Core instructors must be experienced in the lesson content that they are presenting. Instructors must meet the training/experience requirements as outlined under "Instructor training requirements for NPS core instructors."

Instructor training requirements for NPS certified core instructors:

Must have taken and passed the class that is being taught.
Must have taken and passed all prerequisite classes.
Must be currently certified at the class level.
Capable of presenting the class under the supervision of a lead instructor

Qualifications and Certifications required for Technical Specialists

Employees or contractors shall, upon request, furnish three written references from local, state, or federal fire agency directors for whom the prospective instructor(s) has provided instructional services. Instructional services referenced shall have been performed within in 2 years preceding a contract for services with the National Park Service.

Instructors shall provide evidence of current certification as a Fire Officer in accordance with NFPA standard 1021

Instructors shall provide evidence of previous experience as a qualified instructor for ICS I-200, I-300, and I-400.

Prospective candidates shall provide evidence of past or present agency assignments as a state or federally certified Fire Officer. This should include responsibilities for initial and extended emergency operations in structural, Wildland, Liquid and Flammable Gas and Hazardous Materials Incident Management.

Current certification as an Emergency Medical Technician is recommended.

A prospective instructor shall prepare and submit a resume, which specifically outlines his/her experience as it relates to their knowledge, skills and abilities as a fire service instructor.

Evaluation and Certification

It is imperative that the evaluation process weigh appropriate technical and instructional competency of the instructor against nationally recognized fire service standards. Maintaining certification for the Lead instructor is the responsibility of the Regional Structural Fire Management Officer (RSFMO). However, certification exceptions may occur whereby RSFMO's may occasionally designate and certify instructors based upon personal knowledge of skills and instructional abilities in consultation with the Structure Fire Program Training and Education Officer. The National Program Office is responsible for tracking and maintenance of instructor records.

Qualified technical specialists may be used to present specialized training or as subject matter experts. Their selection and use is up to the discretion of the NPS Structural Fire Program Manager and/or Training Officer.

All personnel participating in NPS structural fire suppression will meet established training certification and competencies established for each position.

All NPS personnel participating in NPS structural fire suppression will meet the medical examination and physical training requirements identified in DO/RM 57 and NFPA standard 1582.

Park superintendents or designee are responsible for verifying and certifying that their employees meet the identified position qualification standards.

All persons participating in structural fire fighting will have their training and qualification records entered into the national structure fire training database maintained at the Fire Management Program Center.

Instructors will meet fire suppression instructor qualifications and will have records of classes that they have taught entered into the National Park Service database system.

Live fire training will be conducted in accordance with NFPA standard 1403 -Live Fire Training Evolutions. All engine company members will be required to attend a live fire recurrency training at a minimum of once every two years.